Lat 39.43881 Lon -122.95415

United States Department Of Agriculture | Forest Service | Shasta-Trinity National Forests

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Reply To: 3420 Date: March 9, 1989

Subject: Evaluation of Pogie Point and Sunset Campgrounds, Upper Lake R.D. (Report No. N89-4).

To: Forest Supervisor, Mendocino N.F.

On January 24, 1989, Dave Schultz and Gregg DeNitto from the Northern FPM Service Area and Glenn Westlund and Ron Stone from the Upper Lake Ranger District examined the Pogie Point and Sunset Campgrounds.

POGIE POINT CAMPGROUND

The parking spurs of the Pogie Point Campground run along several ridges perpendicular to the shore of Lake Pillsbury. The vegetation in the immediate vicinity of the developed areas is sparse and consists of overmature Douglas-fir and some oak. Some shrubs had been planted but did not appear to be thriving under the existing conditions in the campground. Areas away from major developments supported a dense growth of younger native vegetation.

The major pest situation detected at Pogie Point was the infestation and mortality of at least 5 old growth Douglas-firs in the campground by the fir flatheaded borer, Melanophila drummondi. These trees will fade as soon as the weather warms. Flatheaded borer adults lay eggs in the bark crevices of host trees in varying degrees of vigor. After hatching, the larvae bore to the cambium. Vigorous hosts are capable of killing the larvae before much damage is done. In hosts with low vigor, the larvae will survive for longer periods of time, kill larger areas of cambium, and further reduce host vigor. As a host tree begins to decline, the larvae begin to grow at a rapid rate and may destroy most of the cambium. The life cycle of the fir flatheaded borer may be completed in as little as a year although a period of 2 to 4 years appears more common.

The major reason for a relatively large number of trees being successfully attacked by the fir flatheaded borer is probably below normal precipitation for the past few years. Other complicating factors include the advanced age and slow growth of the trees, some site changes during construction and paving, and heavy site use and disturbance in the campground. A return to normal precipitation patterns should slow the rate of loss of old growth Douglas-fir in the campground.

There are several actions which have some potential to extend the life of other old growth trees in the campground. The benefits of these actions are much reduced in very old or very weak trees, while the costs in terms of money, labor, material and disruption remains fairly constant. Because a lack of soil moisture is the major underlying factor in the current tree mortality, the remaining trees would probably benefit from deep root watering. Deep root

watering consists of using metal pipes with perforated tips to deliver water to the root zone about 12 - 24 inches below the surface. The amount of water needed will vary with a number of conditions, but as an example: mature ponderosa pine on a coarse sandy soil in the southern Sierra's were able to use 24 - 48 gallons of water per day per tree during the growing season. The pipes and hoses can contribute to a safety hazard and treatment of a large number of trees could put a strain on the available water supply. Surface watering, such as with a sprinkler system, should be avoided because the moisture profile it creates is unnatural for native trees and they tend to become stressed and more susceptible to pests.

Some of the older trees seem to have been adversely affected by soil compaction and minor injuries associated with frequent vehicular and foot traffic near them. There is no rapid and convenient way of reversing the condition of the trees, but it may be possible to stabilize their condition and prevent further deterioration. Fences or other barriers could be used to reduce the amount of disturbance near the root zone of particularly sensitive trees. Any improvement in the condition of these trees may take years. Trees which are already in a severe state of decline will probably show no response to this treatment.

In areas between some of the parking spurs and in ravines between the developed areas there is a dense growth of native trees and shrubs. It is not clear whether the vegetation is in better shape because of deeper soil, better moisture conditions, less disturbance or some combination of factors. If these areas are left to develop naturally, some of the tree species which might be desirable to retain in a campground such as ponderosa pine and Douglas-fir will be severely reduced in number by competition. The reduced growth rate of these trees will prolong the time until the become desirable overstory replacement trees. There is an opportunity to select well-formed conifers, hardwoods and screening shrubs in these aggregations and increase their chances of survival by removing the surplus vegetation.

SUNSET CAMPGROUND

Sunset Campground is located on a large flat adjacent to Lake Pillsbury. The campground is in a multi-layered stand with a heavy component of ponderosa pine. Overstory ponderosa pines with infections of western dwarf mistletoe, Arceuthobium campylopodum, are scattered throughout the area. Although a few trees have heavy infections, there was not a lot of witches' broom development. In a few cases, dwarf mistletoe has begun to spread to adjacent aggregations of ponderosa pine in the lower canopy layers. Because of the widespread occurrence of the infections, the generally light level of infection and the multi-storied stand, methods of reducing dwarf mistletoe over the entire are limited without causing dramatic changes in the stand structure and appearance. This would involve removing infected overstory pines to reduce infections from above and thinning the aggregations to promote tree growth and vigor.

There are some activities that could improve the health of the campground over the short to mid term. Some parts of the area are currently supporting a rather large biomass of brush and tree basal area for a low elevation recreation site. Reducing the total biomass would make more water and nutrients available to the residual trees and would tend to make the conifers more resistant to bark beetle attacks. With careful selection it should be possible to remove a few of the ponderosa pine with the heaviest dwarf mistletoe infections while still

maintaining stand diversity. It would also be beneficial to thin the aggregations of young ponderosa pine to promote more rapid growth and to reduce susceptibility to engraver and bark beetles. Certain overstory pines with light to moderate infections of dwarf mistletoe could be treated to increase their vigor if they are of sufficient value. Any witches' brooms that are present would be removed by pruning at the bole. Only witches' brooms would be removed; other infected branches would not be disturbed except when needed to improve pruning conditions. Trees which would have less than 30 percent live crown following pruning should not be treated. Neither should heavily infected trees (mistletoe ratings of 5 or 6).

In all cases where green pine stems or limbs over about 3 inches diameter are cut, the slash should either be removed from the site, or treated to prevent breeding by pine engravers, Ips spp. Treatments that will work include chipping, burning within six weeks of cutting, and bucking into short bolts which are laid flat on the ground in the sun. Piling or stacking green pine bolts or logs should be avoided unless there are definite plans for further treatment.

Please call Dave Schultz or Gregg DeNitto at 916-246-5087 if you need further information.

/s/

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